

## ARRL 10 Metre Contest 11 and 12 December



### Soar High in the ARRL 10 Metre Contest

The highest of the HF bands will be the central operating focus of many amateurs in the ARRL 10 Metre Contest, 11 and 12 December. During the event, many propagation modes will be available: Sporadic-E will help you work stateside stations, a touch of meteor scatter in the morning will give you split-second chances to work stations - you had better be quick, though! Moreover, DX stations could find their way into the log, thanks to some recent signs of life from the F-layer. "Ten metres was open from the United States to Africa, Europe and South America during the CQ World Wide DX CW contest on the weekend of 27 November," said ARRL Contest Branch Manager Sean Kutzko, KX9X. "Let's see if those conditions remain for the second weekend in December."

Here is the list of Mexican states and the abbreviations to use for logging them in the ARRL 10 Metre Contest, from Rule 5.2.3 of the contest rules. Aguascalientes (AGS), Baja California (BAC), Baja California Sur (BCS), Campeche (CAM), Chiapas (CHI), Chihuahua (CHH), Coahuila (COA), Colima (COL), Distrito Federal (DF or DFE), Durango (DGO), Estado de México (EMX), Guanajuato (GTO), Guerrero (GRO), Hidalgo (HGO), Jalisco (JAL), Michoacán (MIC), Morelos (MOR), Nayarit (NAY), Nuevo León (NLE), Oaxaca (OAX), Puebla (PUE), Querétaro (QRO), Quintana Roo (QUI), San Luis Potosí (SLP), Sinaloa (SIN), Sonora (SON), Tabasco (TAB), Tamaulipas (TAM), Tlaxcala (TLX), Veracruz (VER), Yucatán (YUC), Zacatecas (ZAC).

Read more at <http://www.arrl.org/news/soar-high-in-the-arrrl-10-meter-contest>.

### New Amateur Radio digital mode - V4

V4 is a new data mode optimized for amateur radio keyboard contacts using Viterbi FEC and 4FSK modulation. It is designed to provide good copy even in weak signal or poor propagation conditions. V4 can be implemented on most computers using standard PC sound cards with radio interfaces.

An Alpha version of the software can be downloaded from the files section of the V4 Protocol Yahoo Group <http://groups.yahoo.com/group/V4Protocol/> V4 Protocol and V4 Chat document [http://www.winlink.org/webfm\\_send/169](http://www.winlink.org/webfm_send/169)

### 8,970 kHz - DK7FC's latest tests

Roger, G3XBM, reports that he was able to receive the latest VLF transmissions by DK7FC on 8,970 kHz at a distance of 669 km, the signal was also received by 4X1RF in Israel at 2 873 km!

Roger writes, "This lunchtime, Saturday, 5 December, I managed to copy DK7FC's latest test transmission on 8,970 kHz at a distance of 669 km. Reception was on my 20 m spaced earth electrode antenna (!) into a small FET tuned preamp and Spectrum Lab software. The signal was weak but correlates well with the signals also received by others across Europe and, amazingly, by 4X1RF in Israel. My received signals are visible (live) on my VLF grabber at



[https://dl.dropbox.com/u/15047843/xbm\\_grab.jpg](https://dl.dropbox.com/u/15047843/xbm_grab.jpg). If you look around 8 970 Hz you can see the signal as lines between about 1 200 and 1 400 Hz. Notice the resolution needed to see this: it is also necessary to lock the sound card to a VLF MSK transmission to ensure frequency accuracy.

Although Stefan's ERP is QRP (<100 mW) his input was around 500 - 600 W to a 300 m high kite supported Marconi vertical. Nonetheless, the latest tests confirm that some remarkable DX is possible and it is only a matter of time before the first amateur transatlantic VLF reports are received.

This is indeed a completely new frontier for amateur radio. I am pleased when my own 8,76 kHz signal is copied just 5 km away!"

Update on reception in Israel:

On 4 December, 4X1RF copied and recorded DK7FC's 100 mW ERP VLF signal at an astounding distance of 2 873 km. Signal levels suggest that transatlantic amateur VLF reception may indeed be possible in the near future. Several other stations across Europe (4X counts as Asia!) also copied Stefan's signals.

Extremely accurate frequency setting, very narrow bandwidth FFT based receivers and extremely long transmission times are all required to copy these signals at any DX distance - a casual listen on VLF would result in lots of noise and disappointment - but with some effort almost anyone with a small E-field probe or loop and a PC running freely available software can detect these signals.

To generate a signal that radiates more than a few uW on VLF is another matter and requires high TX power plus a kite or balloon supported antenna: efficiencies at VLF are extremely poor.

G3XBM Videos - <http://www.youtube.com/user/G3XBM>

G3XBM Blog - <http://g3xbm-grp.blogspot.com/>

G3XBM QRP Website - <http://www.g3xbm.co.uk/>

9 kHz Receiving Equipment -

[http://www.southgatearc.org/news/march2010/9khz\\_receiving\\_equipment.htm](http://www.southgatearc.org/news/march2010/9khz_receiving_equipment.htm)

G3XBM gets 8.97 kHz transmitter permit -

[http://www.southgatearc.org/news/october2010/g3xbm\\_transmitter\\_permit.htm](http://www.southgatearc.org/news/october2010/g3xbm_transmitter_permit.htm)

### *Automatic Voice Relay System: AVRS*

Bob, WB4APR, says. "The major initiative that has been driving just about everything new in APRS since

## December

1 World Aids Day; Closing date  
SARL Club logs  
2 Hanukkah  
4/5 ARRL 160 metre contest  
5 PEARS HF contest  
6 Closing date SARL Field Day  
logs  
7 Muharram  
10 Schools close; Int. Human  
Rights Day - Namibia  
11/12 ARRL 10 metre contest  
16 Day of Reconciliation  
21 Summer Solstice; closing date  
CQ WW DX CW logs  
25 Christmas Day  
26 Family Day  
27 Public Holiday  
31 Closing CQ DX Marathon;  
Closing date PEARS HF logs

## January 2011

1 New Years Day, Start of the  
2011 CQ DX Marathon  
1/2 ARRL RTTY Roundup  
8/9 January Hunting Lions in the  
Air Contest; ARRL RTTY Roundup  
9 DARC 10-Metre Contest  
12 Inland Schools open  
19 Coastal Schools open  
20 Closing date for applications  
for May 2011 RAE bursaries  
21 to 23 Port Elizabeth Amateur  
Radio Society National VHF/UHF  
Contest  
22 Summer QRP Sprint  
22/23 BARTG RTTY Sprint  
26 SARL 80 m Club Contest, SSB  
29 PIC Course, Gauteng  
28 to 30 CQ 160-Metre CW Contest;  
UBA DX SSB Contest  
30 Closing date for motions for  
the 2011 SARL AGM; Closing  
date for phase 1 of the construction  
competition





the 2001 time-frame has been making sure that APRS can support the signalling and information system needed so that radio amateurs can TEXT or VOICE to any other radio amateur anywhere at any time using any device and any VOIP system knowing only a call sign. The TEXT version of Universal Hamradio Text Messaging is covered on [www.aprs.org/aprs-messaging.html](http://www.aprs.org/aprs-messaging.html) and a September 2009 QST article.

However, the VOICE version, called Automatic Voice Relay System is on [www.aprs.org/avrs.html](http://www.aprs.org/avrs.html)

When I was at the HRO Grand-Reopening in Atlanta, I got to talk with some D-STAR folks, and D-STAR is another part of this global AVRS initiative. D-Star can already connect voice using call-to-call addressing. Echolink, IRLP and WIRES can do it also using APRS as the call sign, and node locator.

We have been working on this for now a decade and are making progress. In addition to D-star, the other key elements have been:

- 1) Encouraging all DIGI owners to have local FREQ objects
- 2) This includes Echolink, IRLP and WIRES objects
- 3) The auto QSY TUNE button on the TM-D710 radio
- 4) The auto QSY button on the Yaesu FTM-350 radio
- 5) The auto QSY/TUNE button on the TH-D72 HT
- 6) Client implementation of ITEM-IN-MESSAGE (APRSISCE)
- 7) APRS radio receipt and display of ITEM-IN-MESSAGE

The last two allows the AVRS engine that sets up the voice link to analogue users to send back a FREQUENCY OBJECT to the CALLER and the CALLEE showing them their local IRLP, Echolink or VOIP node to use to complete the call. Eventually, when future APRS radio versions receive this QSY packet, they will automatically go to the VOICE channel to complete the voice call, which was initiated on APRS by simply sending a voice-link-request message to "AVRS" containing the CALLEE call sign.

There are still lots more little interfaces and gateways that are needed to connect everything together. For example, a D-STAR user could establish or receive an Echolink or IRLP voice link if someone simply wrote the gateway interface. APRS then extends this to the mobile analogue user via the APRS object and FREQ QSY system to get him on the right RF frequency. Anyway, after 9 years, the hardware and mechanisms are now in place. We just have to get all the smart programmers and egos in the same room and get them cross connected."

### *Maritime Mobile Net*

There have been some changes within the running of the Maritime Mobile Net after Alistair, ZS5MU, had a bit of a health setback. We obviously wish Alistair well and a speedy recovery.

In the mean time, Graham, ZS2ABK, down in Bushmans River has taken control of the running of the daily network on both 14,300 MHz and 7,120 MHz. The call in time is 08.30 CAT / 06.30 UTC and again at 13.30 CAT / 11.30 UTC.

Sam, ZS1SAM, down in Simonstown assists Graham as well, as does Des, ZS2ABU, in Port Elizabeth and Brian, ZS5AZH, in Umzumbi with many coastal stations checking in with reports from as far north as Richards Bay to stations on the West Coast. Graham will be away on leave from 24 November until 7 December when he will resume responsibility for the net. In his absence, Sam and Des will be running the net.

A few in-land stations like Neil, ZS4NN, and occasionally Francois, ZS6BUU, assist where necessary to relay messages when conditions are not good.

{SARL Hamnet Bulletin, December 2010}







## *Humans may become 'wireless towers' in the future*

Hello, I am Jim Linton VK3PC with another from the *Weird 'N Wonderful* file.

Now here's a development that will send shivers right down the spines of those fearful of wireless radiation, make the blood of some reach boiling point or throw their arms up in the air in pure disbelief.

Researchers at Queen's University Belfast are looking to improve the reliability of modern wireless systems. They believe that humans could be turned into wireless towers to create what they call body-to-body networks.

A five-year research project is investigating how small sensors carried by people could communicate with each other to create a ubiquitous wireless networking paradigm.

This would provide enhanced bandwidth needed when too many people use their phone in the same cell area, help the service to penetrate weak signal areas or black holes and counteract dropouts that result from interference.

In a rapidly developing science of body centric communications, new sensors carried by everyone with a mobile phone would interact with each other and wireless devices embedded in local surroundings to transmit data, providing anytime, anywhere mobile network connectivity.

The technology also promises to open up the use of wireless communications in a wider range of activities including law enforcement and first responder teams, sports applications through to medical monitoring of patients in their own homes.

Jim Linton, VK3PC, Wireless Institute of Australia

## *DXCC News*

Bill Moore, NC1L, Awards Branch Manager, reports that the following eight operations from Africa have been approved for DXCC credit:

9Q/DK3MO - Democratic Republic of the Congo; 2007 to the present

3COC - Annobon; 2010 Operation

3C9B - Equatorial Guinea; 2010 Operation

3V9A - Tunisia; 2010 Operation

3VOA - Tunisia; 2010 Operation

TS7TI - Tunisia; Also includes /p operation; 2010 Operation

TS8P - Tunisia; Also includes /p operation; 2010 Operation

TS9A - Tunisia; 2010 Operation

## *Pai, VU2PAI, uploads 100 000 QSOs to Logbook of the World*

The RSGB website reports that Pai, VU2PAI has uploaded about 100 000 QSOs to the Logbook of the World, dating back from 1995. It is not complete as he still has a lot of paper logs, especially from his IOTA activations to AS-096 and AS-161.

Please do not send cash or IRCs while sending QSL cards; he would prefer it if you can put two or three beautiful stamps on your envelope when you send your card. He has been a keen collector of postage stamps from round the world since he was a schoolboy.

Please include a self-addressed envelope or an address sticker along with your QSL card. Pai can be reached by e-mail to [vu2pai@gmail.com](mailto:vu2pai@gmail.com).

## *African DX*

Senegal, 6W. Dave, WJ2O, will be active as WJ2O/6W during the ARRL DX CW Contest (19 and 20 February 2011) as a Single-Op/All-Band/High-Power entry.





Dave informs OPDX that he will arrive in Senegal on 17 February and will be leaving on 23. Activity outside of the contest will be 100% on CW and mostly on the 30, 17 and 12 metre bands. Logs can be viewed in an "almost real-time" at [wj2o.com](http://wj2o.com). QSL via WJ2O.

Sierra Leone, 9L, (Update). Stephen, G7BXU, will be spending the Christmas and New Year holidays in Freetown between 19 December and 7 January. He hopes to be on air most days using the call sign 9L1BXU. His equipment will be a FT-897 and a G5RV antenna. QSL via his home call-sign after his return.

### *African Islands on the Air*

Chagos Islands, VQ9. Larry, VQ9LA, informs OPDX that he will depart the British Indian Ocean Territory (BIOT), Diego Garcia (AF-006), on 24 January 2011. He states, "My plans are to operate as much as possible up to the last day, will try and put as much low band and RTTY on the air as possible before my departure date. All logs will be updated to LoTW, direct/Bureau QSL cards via NOQM will also be fine. Sending cards to my Diego address may or may not be lost in the mail due to the post office mishandling of mail.

After my departure from VQ9, I will be living in the Philippines part of the year and USA part of the year. All QSL cards after January 2011 will be handled once I make it back to the States next year (May 2011). Once the proper paperwork is filed with the RP Government, I will operate an Elecraft K2 transceiver 40 - 10 metres CW/RTTY. Low band ops will not be possible the first year due to a small house. My call sign should be DU3/NOQM. QSL via NOQM and LoTW."

### *Special Event Stations*

Austria. The special event station OE40ADXB celebrates the 40<sup>th</sup> anniversary of the ADXB-OE (Austrian DX Board, OE1XBC) from 15 to 31 December. Activities will take place on SSB and CW on 80 - 10 m, and digital modes on 30 and 20 m. QSL via OE1XBC - Austrian DX Board, PO Box 1000, 1081 Vienna, Austria.

Italy. Some members of the ARI section Taranto are using the special call signs II7IASM and II7IADU until the end of the year. Both QSL via IK7WDS.

### *Contest Calendar*

This week's contests compiled by Bruce Horn, WA7BNM. The period covered is 6 to 13 December 2010.

QRP Fox Hunt  
02:00 - 03:30 UTC 10 December  
Mode: CW  
Bands: 40 m Only  
Classes: Single Op - Fox or Hound  
Max power: 5 watts  
Exchange: RST, state, province or country, name and power output  
QSO Points: 1 point per QSO  
Multipliers: (none)

Score Calculation: Total score = total QSO points

Submit logs by: 03:30 UTC 11 December 2010

E-mail logs to: (see rules)

Mail logs to: (none)

Find rules at:

[http://www.qrpfoxhunt.org/winter\\_rules.htm](http://www.qrpfoxhunt.org/winter_rules.htm)

NCCC Sprint Ladder

02:30 - 03:00 UTC 10 December





Mode: CW

Bands: 160, 80, 40 and 20 m

Classes: Single Op

Max power: 100 watts

Exchange: (see rules)

Work stations: Once per band

QSO Points: NA station: 1 point per QSO;  
non-NA station: 1 point per QSO with an NA  
station

Multipliers: Each US state (including KL7 and  
KH6) once per band; Each VE province once  
per band; Each North American country (ex-  
cept W/VE) once per band

Score Calculation: Total score = total QSO  
points x total mults

Submit logs by: 12 December 2010

E-mail logs to: (none)

Post log summary at:

<http://www.hornucopia.com/3830score/>

Mail logs to: (none)

Find rules at:

<http://www.ncccsprint.com/rules.html>

ARRL 10-Meter Contest

00:00 UTC 11 December to 24:00 UTC 12 De-  
cember

Mode: CW, Phone

Bands: 10 m Only

Classes: Single Op - QRP, Low or High - CW,  
Phone or Mixed; Multi-Single

Max operating hours: 36 hours

Max power: HP: 1500 watts; LP: 150 watts;  
QRP: 5 watts

Exchange: W/VE: RST and state or province;  
XE: RST and state; DX: RST and serial no;  
MM: RST and ITU region

QSO Points: 2 points per Phone QSO; 4  
points per CW QSO

Multipliers: Each US State and DC once per  
mode; Each VE Province/Territory once per  
mode; Each XE State once per mode; Each  
DXCC Country once per mode; Each ITU Re-  
gion (MM only) once per mode

Score Calculation: Total score = total QSO  
points x total mults

Submit logs by: 11 January 2011

E-mail logs to: 10meter[at]arrl[dot]org

Mail logs to: 10 Meter Contest, ARRL, 225  
Main St., Newington, CT 06111, USA

Find rules at: <http://www.arrl.org/10-meter>

Feld Hell Sprint

00:00 - 24:00 UTC 11 December

Mode: Feld Hell

Bands: 160, 80, 40, 20, 15 and 10 m

Classes: (none)

Max power: Standard: 100 watts; QRP: 5  
watts

Exchange: (see rules)

Work stations: Once per band

QSO Points: (see rules)

Bonus Points: (see rules)

Multipliers: Each state, province and country  
once only

Score Calculation: Total score = (total QSO  
points x total mults) and bonus points

Submit logs by: 1 January 2011

E-mail logs to: (none)

Post log summary at:

[http://sites.google.com/site/feldhellclub/Ho  
me/contests](http://sites.google.com/site/feldhellclub/Home/contests)

Mail logs to: (none)

Find rules at:

[http://sites.google.com/site/feldhellclub/Ho  
me/contests](http://sites.google.com/site/feldhellclub/Home/contests)

MDXA PSK DeathMatch

00:00 UTC 11 December to 24:00 UTC 12 De-  
cember

Mode: PSK31, PSK63

Bands: 160, 80, 40, 20, 15, 10 and 6 m

Classes: Single Op Single Transmitter 50 - 75  
W; Single Op Single Transmitter 25 - 50 W;  
Single Op Single Transmitter 5 W (QRP)

Max operating hours: 48 hours

Exchange: Name and state or country

QSO Points: 1 point per QSO on 80 - 10 m; 2  
points per QSO on 160 or 6 m; 5 points per  
QSO with AC4M

Multipliers: States/provinces, once per PSK  
mode per band; DXCC countries, once per PSK  
mode per band

Score Calculation: Total score = total QSO  
points x total mults

Submit logs by: 25 December 2010

E-mail log summary to:

chucklem[at]comcast[dot]net

Mail logs to: (none)





Find rules at:

<http://www.mdxa1.org/deathmatch.html>

#### International Naval Contest

16:00 UTC 11 December to 15:59 UTC 12 December

Mode: CW, SSB

Bands: 80, 40, 20, 15 and 10 m

Classes: Single Op All Band - CW, SSB or Mixed; Naval Club Station; non-Naval; SWL

Max operating hours: 24 hours

Exchange: Naval Club Member: RS(T), club and member no; non-Naval Club Member: RS(T) and serial no

QSO Points: Naval Club Members: 10 points; non-Naval Club Members: 1 point

Multipliers: Naval Club Members, once regardless of band

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 1 February 2011

E-mail logs to: df8ld[at]darc[dot]de

Mail logs to: MF-Runde e.V., Albert Homrighausen, DF8LD, Am Fliederbogen 2, D-24980, Schafflund, Germany

Find rules at:

<http://www.marinefunker.de/eng/show.php3?pos=15>

#### SKCC Weekend Sprint

00:00 - 24:00 UTC 12 December

Mode: CW

Bands: 160, 80, 40, 20, 15, 10 and 6 m

Classes: (none)

Exchange: RST, name, state, province or country and SKCC no or "NONE"

Work stations: Once per band

QSO Points: 1 point per QSO

Bonus Points: (see rules)

Multipliers: Each state, province or country once

Score Calculation: Total score = (total QSO points x total mults) and bonus points

Submit logs by: 17 December 2010

Post log summary at:

<http://www.skccgroup.com/sprint/wes/wes-submit.html>

Mail logs to: (none)

Find rules at:

<http://www.skccgroup.com/sprint/wes/>

#### CQC Great Colorado Snowshoe Run

21:00 - 22:59 UTC 12 December

Mode: CW

Bands: 20m Only

Classes: W: single element wire antenna; V: vertical antenna; B: multi-element arrays/beams; P: portable

Max power: 5 watts

Exchange: RST, state, province or country, antenna class and CQC member no or power

Work stations: Same station up to 3 times, at least 30 minutes between QSOs

QSO Points: 1st QSO with station: 3 points; 2nd QSO with same station: 2 points; 3rd QSO with same station: 1 point; Bonus: 100 points for first QSO with WOCQC

Multipliers: Each state, province, country, CQC member once

Score Calculation: Total score = total QSO points x (state mults and province mults and country mults) x CQC members

Submit logs by: 11 January 2011

E-mail logs to: ki0rb[at]arrl[dot]net

Mail logs to: (none)

Find rules at:

<http://www.cqc.org/contests/snow2010.htm>

### Next Week's Contests

NA High Speed Meteor Scatter Winter Rally, 00:00 UTC 11 December to 02:00 UTC 16 December

NAQCC Straight Key/Bug Sprint, 01:30 - 03:30 UTC 15 December

QRP Fox Hunt, 02:00 - 03:30 UTC 15 December

QRP Fox Hunt, 02:00 - 03:30 UTC 17 December

NCCC Sprint Ladder, 02:30 - 03:00 UTC 17 December

AGB-Party Contest, 21:00 - 24:00 UTC 17 December







Russian 160-Meter Contest, 21:00 - 23:00 UTC 17 December  
OK DX RTTY Contest, 00:00 - 24:00 UTC 18 December  
RAC Winter Contest, 00:00 - 23:59 UTC 18 December  
Lighthouse Christmas Lights QSO Party, 00:01 UTC 18 December to 23:59 UTC 2 January  
Croatian CW Contest, 14:00 UTC 18 December to 14:00 UTC 19 December  
Stew Perry Topband Challenge, 15:00 UTC 18 December to 15:00 UTC 19 December  
ARRL Rookie CW Roundup, 18:00 - 23:59 UTC 19 December  
ARCI Holiday Spirits Homebrew Sprint, 20:00 - 24:00 UTC 19 December  
Run for the Bacon QRP Contest, 02:00 - 04:00 UTC 20 December

### History This Week

A look back at events that made history this week - compiled by the Summerland Amateur Radio Club of Lismore, NSW. The week starting Monday 6 December 2010.

1768 - First edition of "Encyclopaedia Britannica" published in Scotland  
1877 - Thomas A Edison demonstrates the gramophone  
1888 - Highest temperature recorded in Lismore, Australia, 53,3 °C  
1896 - Preece and Marconi first public demonstration of radio at Toynbee Hall, London  
1901 - Marconi received the first transatlantic communication, the letter S.  
1902 - Marconi transmits from Cape Breton Island to Cornwall. The message is recorded on tape  
1961 - The first amateur satellite, OSCAR I was launched

*Items used with acknowledgement to The ARRL Letter, Amateur Radio Newsline, OPDX Bulletin, 425 DX Bulletin, DXNL Bulletin, ARRL DX News, WIA-News, the RSGB News, Southgate ARC and Pete's DX Newsdesk.*

*Newsletter editors are most welcome to use material from HF Happenings, just remember to acknowledge the source (which could be any one of the names mentioned above). HF Happenings can be provided in MS Word format.*

